
Neural progenitor cells regulate microglia functions and activity.

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Public Summary:

We found mouse neural progenitor cells (NPCs) secrete a different set of signaling proteins than other brain cells and that they are capable of modulating the activation, proliferation and phagocytosis of the brain's main immune cells, the microglia. NPC-derived vascular endothelial growth factor was necessary and sufficient to exert at least some of these effects in mice. Thus, neural precursor cells may not only be shaped by microglia, but also regulate microglia functions and activity.

Scientific Abstract:

We found mouse neural progenitor cells (NPCs) to have a secretory protein profile distinct from other brain cells and to modulate microglial activation, proliferation and phagocytosis. NPC-derived vascular endothelial growth factor was necessary and sufficient to exert at least some of these effects in mice. Thus, neural precursor cells may not only be shaped by microglia, but also regulate microglia functions and activity.

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